

## Report cases of legionellosis to the NDDoH

The North Dakota Department of Health (NDDoH) encourages providers to be aware of symptoms associated with legionellosis. Resources are provided in this Health Advisory to help with the identification and reporting of *Legionella* cases and specimen collection. Surveillance has shown that legionellosis cases generally peak in summer and early fall, but can happen at any time during the year. Generally, the number of reported cases has been increasing over the last five years. In 2018, ten cases were identified in North Dakota. So far in 2019, there have been seven confirmed legionellosis cases from four different counties. All cases have been hospitalized.

Legionnaires' disease may cause a severe pneumonia and nonproductive cough and often requires hospitalization, while Pontiac fever generally resolves on its own. Although extremely rare, *Legionella* can also cause extrapulmonary infections, such as endocarditis or wound infections. Certain groups of people are at increased risk for Legionnaires' disease and more severe outcomes. These include:

- People ages > 50 years
- Current or past smokers
- People with chronic lung disease, diabetes, renal disease or are immunocompromised

Medical providers should continue to consider the diagnosis of Legionnaires' disease in patients presenting with clinical features of pneumonia, fever and cough. Symptoms usually begin 2–10 days after exposure. Testing for legionellosis should be considered in patients who:

- Have failed outpatient antibiotic therapy
- Have severe pneumonia, particularly those requiring intensive care
- Are immunocompromised
- Traveled away from home within two weeks prior to the onset of illness
- Are suspected of having healthcare-associated pneumonia

Several testing options are available for the detection of infections due to *Legionella pneumophila*. When testing for Legionnaires' disease, please be aware that both urine antigen assay **AND** culture of respiratory secretions on selective media are the preferred diagnostic tests for Legionnaires' disease.

- Culture of lower respiratory specimens. While culture can detect most the different serogroups of *Legionella*, the organism is difficult to grow and yield on culture can be poor. Culture is important as it also provides important information that can be used to link environmental samples, as well as assist during outbreak investigations.

- Urine antigen testing is widely available but detects only serogroup 1, which is the serotype most commonly associated with disease.
- Acute and convalescent serology with a 4-fold rise in titer is diagnostic. Convalescent serum should be collected three to six weeks after the acute phase serum. Many serum antibody tests only detect antibodies to serogroup 1.
- Validated nucleic acid amplification tests (NAAT) that detect *Legionella* species from lower respiratory secretions, lung tissue, pleural fluid, or extrapulmonary sites may also be used to diagnose Legionellosis.

Providers should consult with their laboratories to determine what testing is available to them. The NDDoH's Division of Microbiology offers culture testing on appropriate specimens. For more information, including appropriate specimens and cost, see the [2019 Directory of Services](#). Providers may also call the NDDoH Division of Microbiology at 701.328.6272.

Treatment with a respiratory fluoroquinolone such as levofloxacin or a macrolide (azithromycin) is indicated. While it is preferred that you obtain diagnostic testing before antibiotic administration, antibiotic treatment should not be delayed. Legionellosis is a mandatory reportable condition to the NDDoH. Providers should report cases to the NDDoH Division of Disease Control by calling 1.800.472.2180 or 701.328.2378.

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#### **Categories of Health Alert Network messages:**

**Health Alert** Requires immediate action or attention; highest level of importance

**Health Advisory** May not require immediate action; provides important information for a specific incident or situation

**Health Update** Unlikely to require immediate action; provides updated information regarding an incident or situation

**HAN Info Service** Does not require immediate action; provides general public health information

##This message was distributed to state and local health officers, state and local epidemiologists, state and local laboratory directors, public information officers, HAN coordinators, and clinician organizations##